



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/525,830

06/16/2005

Yukihito Ichikawa

122922

9182

25944 7590 10/06/2008

OLIFF & BERRIDGE, PLC

P.O. BOX 320850

ALEXANDRIA, VA 22320-4850

EXAMINER

NGUYEN, CHI Q

ART UNIT

PAPER NUMBER

3635

MAIL DATE

DELIVERY MODE

10/06/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/525,830	<b>Applicant(s)</b> ICHIKAWA, YUKIHITO	
	<b>Examiner</b> CHI Q. NGUYEN	<b>Art Unit</b> 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 18-34 is/are pending in the application.
- 4a) Of the above claim(s) 30-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This Office action is in response to applicant's patent application filed on 6/16/2005.

#### ***Status of Claims***

Claims 1-17 have been cancelled.

Claims 18-34 are pending.

#### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121.

I. Claims 18-29 are drawn to a honeycomb structure, classified in class 428.

II. Claims 30-34 are drawn to an apparatus of a die, classified in class 425.

The inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP 806.04, MPEP 808.01).

In the instant case, the different inventions of claims in group I could be made without a die, e.g. thermosetting or protrusion method.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purpose as indicated is proper.

During a telephone conversation with Mr. James A. Oliff a provisional election was made with traverse to prosecute the invention of group I, claims 18-29. Affirmation of this election must be made by applicant in replying to this Office action. Claims 30-34 withdrawn from further consideration by the examiner as being drawn to a nonelected invention.

### ***Specification***

The abstract of the disclosure is objected to because the applicant is advised to take out the phrases "The present invention" and "According to the present invention" . Correction is required. See MPEP § 608.01(b).

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Objections***

Claims 19, 20 and 24 are objected to because of the following informalities: applicant is advised not to use parentheses and mathematical formulas in the claims. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regarding claim 1, a limitation "at least some of the cells" is indefinite and uncertain limitation. Clarification is required.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

Art Unit: 3635

unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 18-29 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 7,429,416.

Although the conflicting claims are not identical, they are not patentably distinct from each other because all of the features of the instant claims are included within the patented claims except for the obvious design choice of the ratios between thickness and lengths or long length and short length are varied. For example, the instant claims calls for 1000 or less (claim 19), 2 or less (claim 20) and the patented claim 1 (between 1.6 and 4.0 inclusive).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3635

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18 and 25-29 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 4,329,162 to Pitcher, Jr.

Claims 18 and 29:

Pitcher Jr. discloses in Fig. 1, a honeycomb structure, comprising: a cell structure section including a plurality of cells 3 partitioned by a plurality of partition walls 2; and an outer circumferential wall section 6 surrounding the cell structure section 3; wherein the cell structure section includes a first partition wall group having the partition walls positioned in parallel, and a second partition wall group having the partition walls which intersect the partition walls of the first partition wall group at right angles and are positioned in parallel, each of the partition walls connecting two different locations of the outer circumferential wall section through one continuous plane; wherein partition wall intervals of each of the partition wall groups positioned in parallel are varied stepwise in at least a part of the cell structure section, and at least some of the cells have a rectangular cross-sectional shape; and wherein all the partition walls have such a ratio of a cell side length to a partition wall thickness that the partition wall can withstand pressure during canning (see Figs. 1-2).

Claim 25:

Wherein the cells are alternately plugged on either end face 8/11 (see Fig. 2 and col. 5, line 47).

Claims 26-28:

Art Unit: 3635

Wherein a catalyst component is loaded on a surface and/or inside of the partition wall (col. 8, lines 12-13) and wherein an adsorbent component 9 is loaded on a surface and/or inside of the partition wall.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 4,329,162 to Pitcher, Jr.

Pitcher, Jr. discloses the basic structures for a honeycomb structures as stated above but does not disclose expressly wherein a square of the ratio of the cell side length to the partition wall thickness of the partition walls of the cell structure section is 1,000 or less, wherein a flattening ratio of the cells in the cell structure section is 2.0 or less. 21, wherein the partition wall intervals of the first partition wall group are varied at a different pattern or size relative to the partition wall intervals of the second partition wall group; wherein the partition wall intervals are varied geometrically in a region in which the partition wall intervals are varied stepwise; wherein the partition wall intervals are varied arithmetically in a region in which the partition wall intervals are varied stepwise; wherein a partition wall interval variation ratio is 0.5 or less in a region in which the partition wall intervals are varied stepwise. However, these features would have been a matter of obvious design choice to one of ordinary skill in the art at the time

Art Unit: 3635

the invention was made to have different ratios for particular thickness, length or long length and short length, etc. based on the desirable use or application of the device.

Furthermore, applicant has not disclosed the criticality of these features.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Chi Q. Nguyen whose telephone number is (571) 272-6847. The examiner can normally be reached on Monday-Friday from 7:30 am-4:00 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached at (571) 272-6777.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pairedirect.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197.

/C. Q. N./  
Examiner, Art Unit 3635

/Richard E. Chilcot, Jr./  
Supervisory Patent Examiner, Art Unit 3635